

# TSD401 FACILITIES CAPACITY REVIEW

03.14.2016



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## **FACILITIES REVIEW**

- Review 2012 Capacities Study
- 2016 Capacities

## **CONSTRUCTION DELIVERY METHODS**

- Design/ Bid / Build
- Design/ Build
- CMA
- CMGC

## **DETERMINING CAPACITY OF YOUR FACILITIES**

- Idaho Dept of Ed does not have a standard
- Idaho Division of Building Safety does not have a standard
- International Building Code
  - Classroom Areas 20sf/occ
  - Shops and Other Voc. Rooms 50sf/occ
- International Mechanical Code
  - Occupants  $\leq$  9 yrs: 40sf/occ
  - Occupants  $>$  9 yrs: 28sf/occ
- Other State Standards
- National Data

### **DETERMINING CAPACITY OF YOUR FACILITIES**

- Other State Standards
  - North Dakota Department of Instruction
  - Wyoming School Facilities Department
  - California Department of Education
  - Texas Education Agency
  - Universal Child Care Licensing Standards
  
- National Data
  - School Planning and Management
    - Annual School Construction Report

### **DETERMINING CAPACITY OF YOUR FACILITIES**

- Elementary Schools
  - Classrooms = 35 sf/occ
  - School = 129 sf/occ
- Middle Schools
  - Classrooms = 37 sf/occ x 0.85 Utilization Rate
  - School = 138 sf/occ
- High Schools
  - Classrooms = 40 sf/occ x 0.8 Utilization Rate
  - School = 165 sf/occ



# PLANNING STANDARDS

## STATE OF IDAHO RECOMMENDATIONS FOR ACREAGE OF SCHOOL FACILITIES

### **DETERMINING THE CAPACITIES OF YOUR SITES**

- Elementary
  - Minimum of 5 acres
  - Additional acre for each 100 pupils
  
- Junior High Schools
  - 10 acres for enrollments to 300
  - 15 acres for enrollments to 500
  - 20 acres + 1 acre for each 100 pupils for enrollments > 500
  
- Senior High Schools
  - 20 acres for enrollments to 400
  - 25 acres for enrollments to 800
  - 30 acres + 1 acres for each 100 pupils for enrollments > 800



## 05.2012 - TSD401 Facility Service Life

Expected Service Life of Facilities	Years
Masonry	*77
Wood	*51
Concrete	*87
Steel	*77
Portable Structures	**25

\*Survey on Actual Service Lives of North American Buildings 2004

\*\*Capital Assets of Local Governments Suggested Useful Lives

# TSD401 FACILITIES CAPACITY REVIEW



03.2012 STUDY REVIEW

<b>Teton High School / Vo-Ag</b>	
<b>Building Data</b>	
Total Building Square Footage (TBSF)	90,000
Number of Classrooms	29
Total Classroom Square Footage (TCSF)	29,512
Actual Student Body (2012)	413
<b>Capacity</b>	
Widely Accepted Standard Method [ $TCSF / (40 \text{ sf/occ.}) \times 0.8 \text{ Utilization Rate}$ ]	590
2011 National Median Method [ $TBSF / (165 \text{ sf/occ.})$ ]	545
<b>Capacity Range of 545-590 Students</b>	<b>70-76%</b>





# TSD401 FACILITIES CAPACITY REVIEW



03.2012 STUDY REVIEW

<b>Teton Middle School</b>	
<b>Building Data</b>	
Total Building Square Footage (TBSF)	61,773*
Number of Classrooms	22*
Total Classroom Square Footage (TCSF)	19,512
Actual Student Body (2012)	381
<b>Capacity</b>	
Widely Accepted Standard Method [ $TCSF / (37 \text{ sf/occ.}) \times 0.85 \text{ Utilization Rate}$ ]	448
2011 National Median Method [ $TBSF / (138 \text{ sf/occ.})$ ]	447
<b>Capacity Range of 447-448 Students</b>	<b>85%</b>

\*Figures deviate from District provided figures



# TSD401 FACILITIES CAPACITY REVIEW



03.2012 STUDY REVIEW

<b>Rendezvous Upper Elementary School</b>	
<b>Building Data</b>	
Total Building Square Footage (TBSF)	26,036
Number of Classrooms	13
Total Classroom Square Footage (TCSF)	9,083
Actual Student Body (2012)	256
<b>Capacity</b>	
Widely Accepted Standard Method [TCSF/(35 sf/occ.)]	259
2011 National Median Method [TBSF/(129 sf/occ.)]	201
<b>Capacity Range of 201-259 Students</b>	<b>99-127%</b>



# TSD401 FACILITIES CAPACITY REVIEW



03.2012 STUDY REVIEW

<b>Driggs Elementary School / Basin High School</b>	
<b>Building Data</b>	
Total Building Square Footage (TBSF)	46,538*
Number of Classrooms	22*
Total Classroom Square Footage (TCSF)	13,781*
Actual Student Body (2012)	280
<b>Capacity</b>	
Widely Accepted Standard Method [TCSF/(35 sf/occ.)]	393
2011 National Median Method [TBSF/(129 sf/occ.)]	360
<b>Capacity Range of 360-393 Students</b>	<b>71-78%</b>

\*Figures include maintenance square footage and second floor classrooms



# TSD401 FACILITIES CAPACITY REVIEW



03.2012 STUDY REVIEW

<b>Driggs Elementary School</b>	
<b>Building Data</b>	
Total Building Square Footage (TBSF)	34,368*
Number of Classrooms	18*
Total Classroom Square Footage (TCSF)	13,781*
Actual Student Body (2012)	250
<b>Capacity</b>	
Widely Accepted Standard Method [TCSF/(35 sf/occ.)]	269
2011 National Median Method [TBSF/(129 sf/occ.)]	266*
<b>Capacity Range of 266-269 Students</b>	<b>93-94%</b>

\*Figures modified to exclude space not utilized by Driggs Elementary



# TSD401 FACILITIES CAPACITY REVIEW



03.2012 STUDY REVIEW

<b>Vic tor Elementary School</b>	
<b>Building Data</b>	
Total Building Square Footage (TBSF)	22,382
Number of Classrooms	9
Total Classroom Square Footage (TCSF)	6,703
Actual Student Body (2012)	187
<b>Capacity</b>	
Widely Accepted Standard Method [TCSF/(35 sf/occ.)]	191
2011 National Median Method [TBSF/(129 sf/occ.)]	173
<b>Capacity Range of 173-191 Students</b>	<b>98-108%</b>



# TSD401 FACILITIES CAPACITY REVIEW



03.2012 STUDY REVIEW

<b>Teton Elementary School</b>	
<b>Building Data</b>	
Total Building Square Footage (TBSF)	15,158
Number of Classrooms	8
Total Classroom Square Footage (TCSF)	4,300
Actual Student Body (2012)	86
<b>Capacity</b>	
Widely Accepted Standard Method [TCSF/(35 sf/occ.)]	122
2011 National Median Method [TBSF/(129 sf/occ.)]	117
<b>Capacity Range of 117-122 Students</b>	<b>70-74%</b>



# TSD401 FACILITIES CAPACITY REVIEW



03.2012 STUDY REVIEW

03.2012 - TSD401 Facilities Capacities					
Facility	Student Body	Max. Capacity Range	% of Max. Capacity	Age of Facility	% of Service Life
Teton High School	413	545-590	70-76%	1998	18%
Teton Middle School	381	447-448	85%	2009	4%
Rendezvous Elementary School	256	201-259	99-127%	1958	110%
Driggs Elementary/Basin High School	280	360-393	71-78%	1952/72	81%
Driggs Elementary School	250	266-269	93-94%	1952/72	81%
Victor Elementary School	187	173-191	98-108%	1948	95%
Tetonia Elementary School	86	117-122	70-74%	1953	79%



# TSD401 FACILITIES CAPACITY REVIEW



03.2016 - TSD401 Facilities Capacities								
Facility	Student Body 2012	Student Body 2016	Capacity Range	% of Capacity 2012	% of Capacity 2016	Age of Facility	% of Service Life 2012	% of Service Life 2016
THS	413	490	545-590	70-76%	83-90%	1998	18%	23%
TMS	381	407	447-448	85%	91%	2009	4%	9%
RUES	256	262	201-259	99-127%	101-130%	1958	110%	118%
DES/ BHS	280	377	360-393	71-78%	96-104%	1952/ 72	81%	86%
DES	250	317	266-269	93-94%	117-119%	1952/ 72	81%	86%
VES	187	189	173-191	98-108%	99-109%	1948	95%	100%
TES	86	100	117-122	70-74%	82-85%	1953	79%	84%





# TSD401 FACILITIES CAPACITY REVIEW



03.2012 STUDY REVIEW

## 03.2012 - TSD401 Site Capacities

Facility	Acres	State Recommendation	% of Capacity
Teton High School	40	25 acres	63%
Teton Middle School	40	15 acres	37%
Rendezvous Upper Elementary School	6.58	7.62 acres	116%
Driggs Elementary/Basin High School	8	8.17 acres	102%
Victor Elementary School	2.5	6.89 acres	276%
Tetonia Elementary School	4	6 acres	150%



## WHATS WRONG WITH OVERCROWDING?

- Overcrowding is sharply linked with...
  - lower achievement
  - students paying less attention
  - more violence
  - spread of illness



## HOW DO WE DEAL WITH OVERCROWDING?

- Do nothing.
- Fill the playground and parking areas with “temporary” facilities;
- Convert gymnasiums, stages, libraries, computer labs, special education rooms, teachers’ work rooms, and storage areas into classrooms;
- Attempt to move students elsewhere (bus them);
- Adopt new schedules (multi-track/year round);  
and/or
- Expand and/or replace facilities.

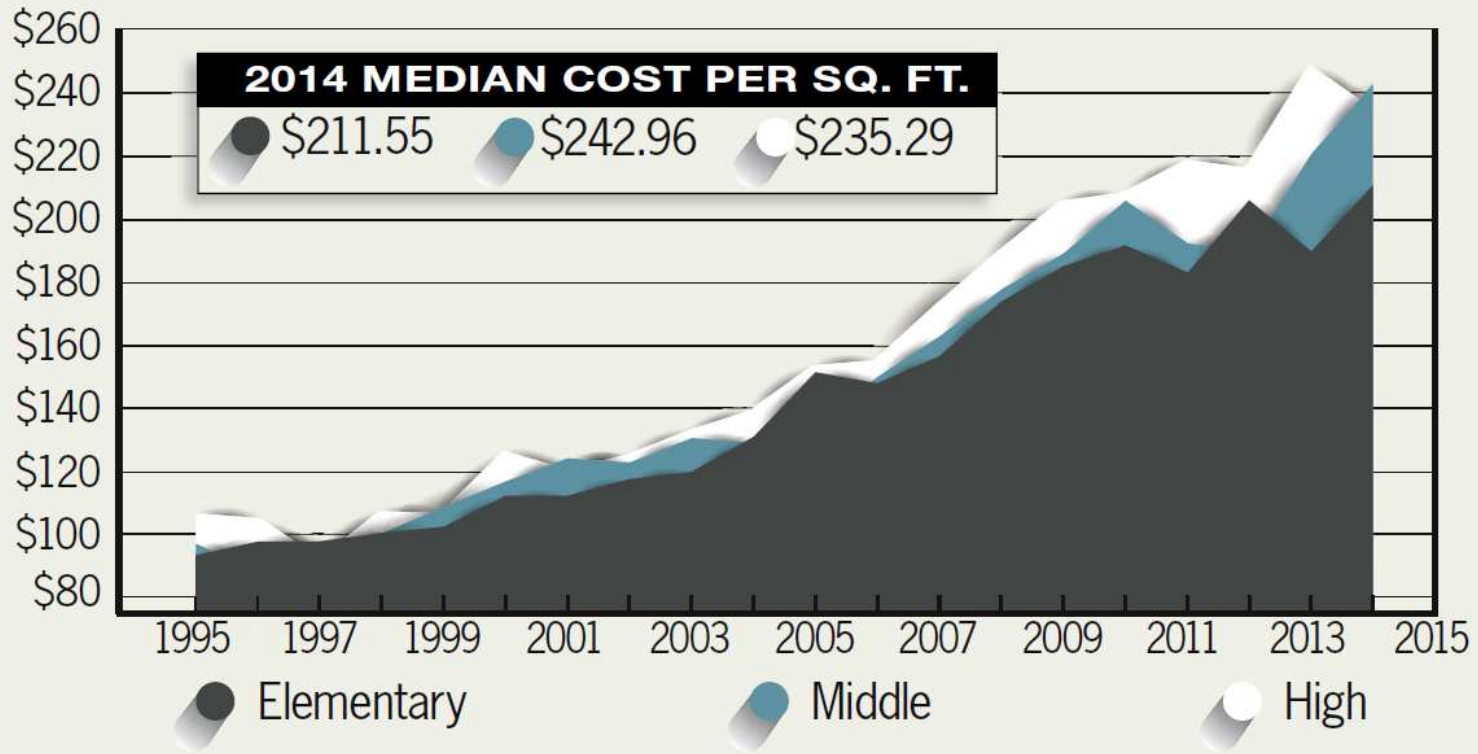


# TSD401 FACILITIES CAPACITY REVIEW

SCHOOL PLANNING & MANAGEMENT

20<sup>TH</sup> ANNUAL SCHOOL CONSTRUCTION REPORT FEBRUARY 2015

## GRAPH A: MEDIAN COST PER SQ. FT., 1995-2014

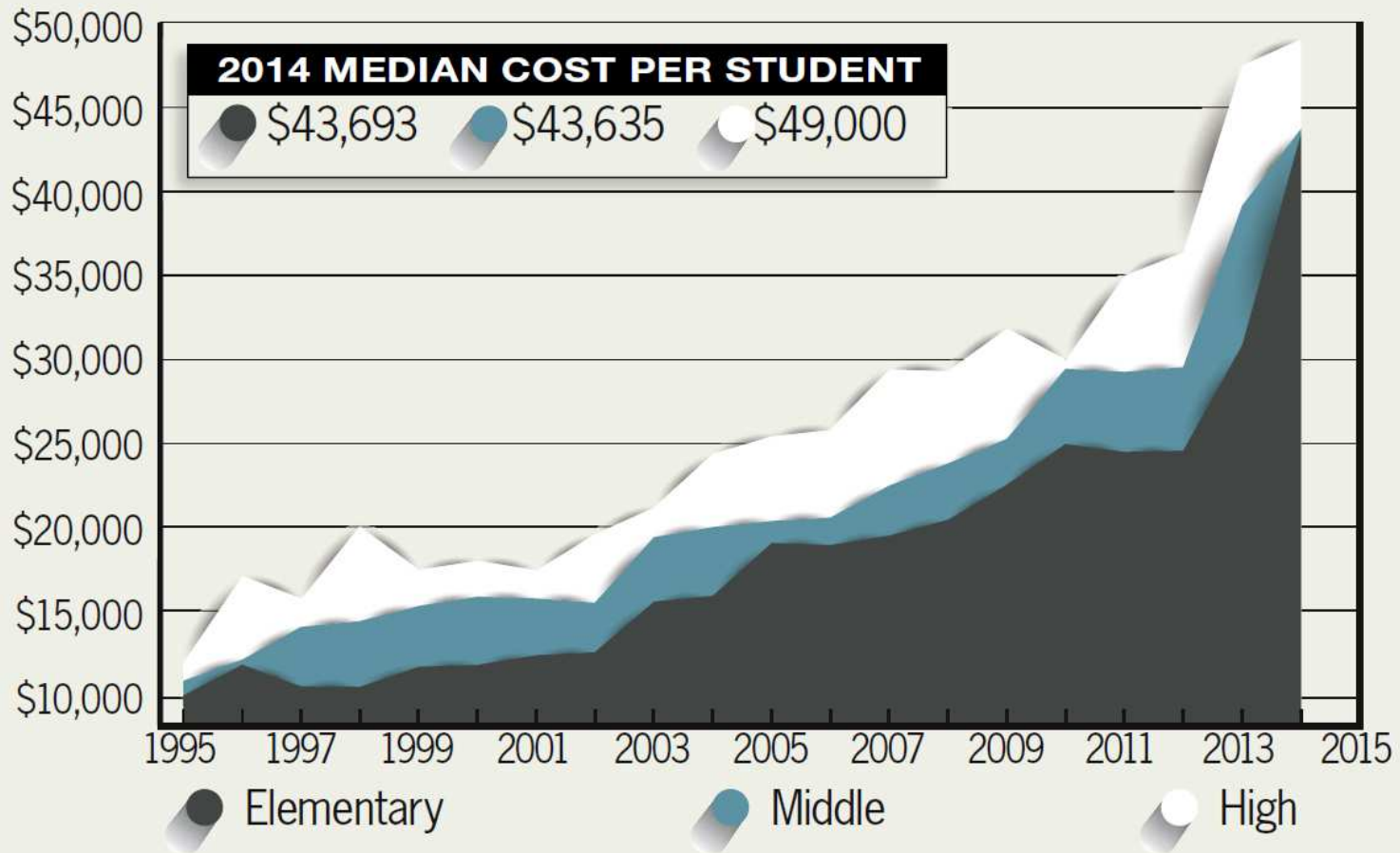


# TSD401 FACILITIES CAPACITY REVIEW

SCHOOL PLANNING & MANAGEMENT

20<sup>TH</sup> ANNUAL SCHOOL CONSTRUCTION REPORT FEBRUARY 2015

## GRAPH B: MEDIAN COST PER STUDENT, 1995-2014

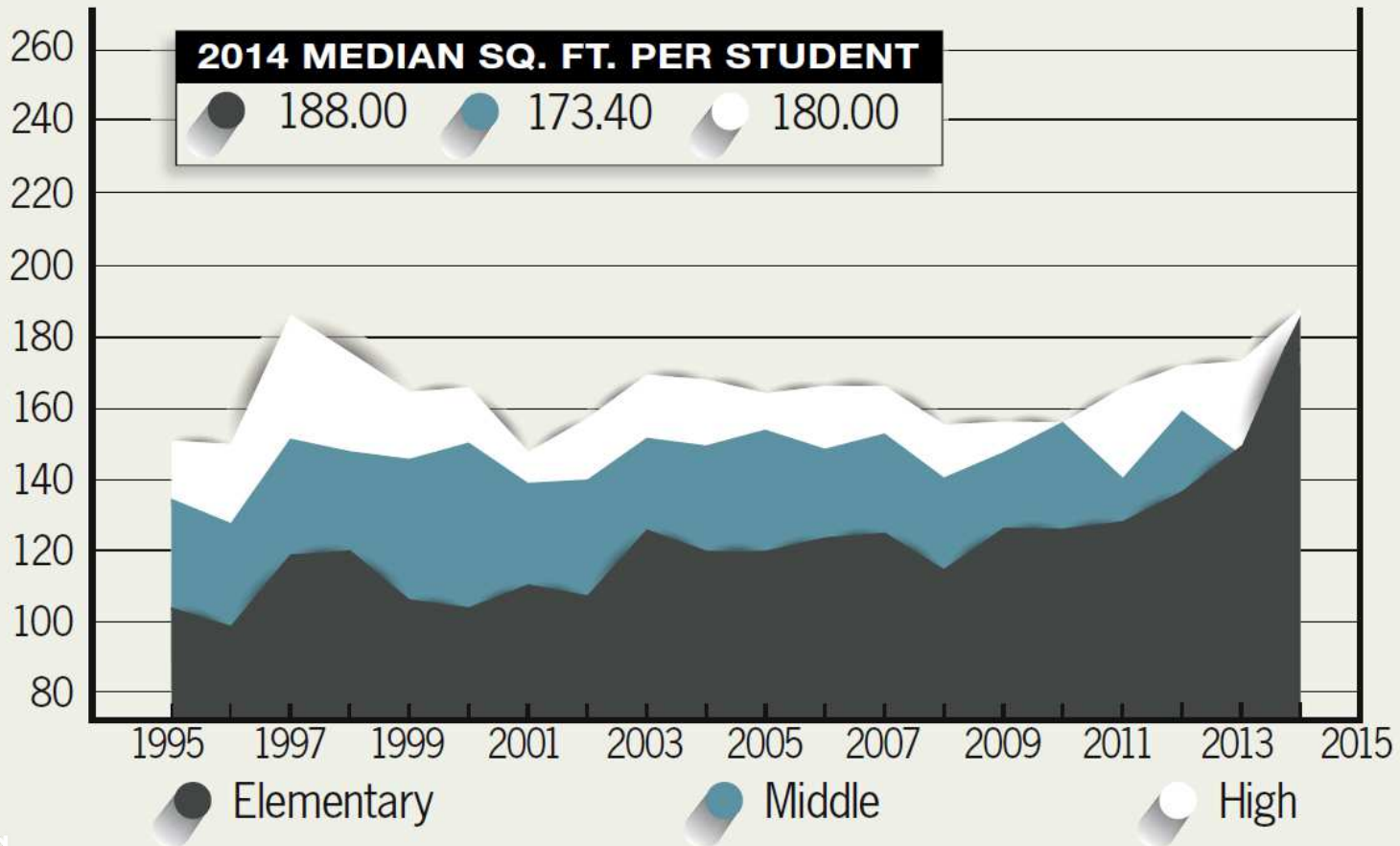


# TSD401 FACILITIES CAPACITY REVIEW

SCHOOL PLANNING & MANAGEMENT

20<sup>TH</sup> ANNUAL SCHOOL CONSTRUCTION REPORT FEBRUARY 2015

## GRAPH C: MEDIAN SQ. FT. PER STUDENT, 1995-2014



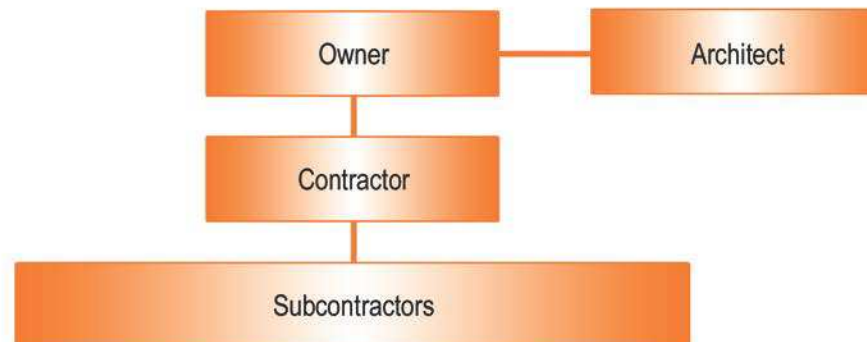
## DESIGN-BID-BUILD

### PROS

- Traditional method most widely used
- Theoretically, the lowest possible price
- Transparent procurement

### CONS

- Little control over who bids and builds the project
- No input from Contractor on documents prior to bidding
- No control of construction cost prior to bidding



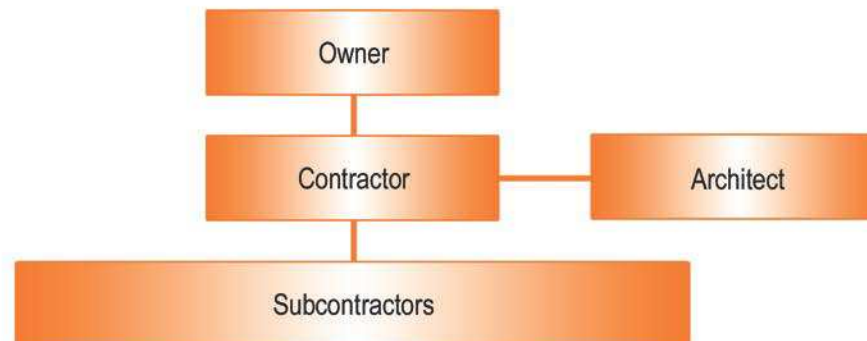
## DESIGN-BUILD

### PROS

- Single source of responsibility
- Allows Contractor and Architect to work as a team
- Establishes early and accurate cost estimates

### CONS

- Eliminates checks and balances between Architect and Contractor
- The Project will be only as good as the proposal criteria given to the DB team
- Contractor has the final word on Aesthetics
- Contractor controls the flow of communication





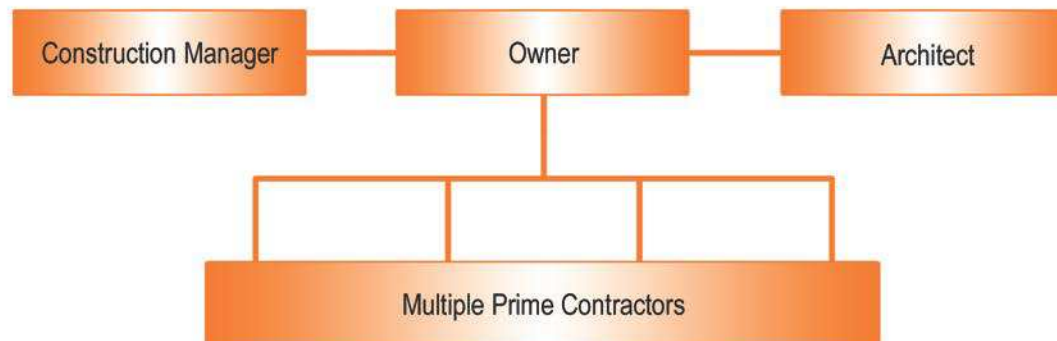
## CONSTRUCTION MANAGER (CM) CONSTRUCTION MANAGER AGENCY (CMA)

### PROS

- Construction Manager chosen through pre-qualification
- Can help establish preliminary costs but with no guarantees
- Allows for value engineering throughout design

### CONS

- Construction Manager does not bond the project
- No single source of responsibility
- Owner holds multiple contracts (Heavy Owner involvement throughout)
- Can create finger pointing between prime contractors



## CONSTRUCTION MANAGER GENERAL CONTRACTOR (CMGC) CONSTRUCTION MANAGER AT RISK (CMAR)

### PROS

- Owner maintains traditional control over project design and quality
- Increases opportunity to use local labor force
- Develops early and accurate scheduling
- Develops early and accurate costs
- Owner has guaranteed cost prior to bidding (no surprises)
- Maintains checks and balances between Architect and Contractor

### CONS

- Can result in inflated costs

